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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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IM22/0312

EXAMINER

PENG, K

ART UNIT

PAPER NUMBER

1712

DATE MAILED:

03/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/525,158

Applicant(s)

HIRT ET AL.

Examiner

Kuo-Liang Peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/6/00 Information Disclosure Statement.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 13-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-11 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 12 is/are objected to.
- 8) ☒ Claims 1-17 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-12, drawn to a block copolymer, classified in class 528, subclass 33.
 - II. Claims 13-14, drawn to a process of making a molding, classified in class 264, subclass 299.
 - III. Claims 15-17, drawn to a molding such as an ophthalmic molding, classified in class 351, subclass 159.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and Group II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product in Group I can be used in a coating process.
3. Inventions of Group I and Group III are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a coating material and the inventions are deemed

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patentably distinct since there is nothing on this record to show them to be obvious variants.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Inventions of Group II and Group III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process of Group II can be used for polyurethane product.

5. During a telephone conversation with Mr. Robert J. Gorman, Jr. on March 1, 2001 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-17 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. If applicant desires priority under 35 U.S.C. 119(e) based upon a previously filed copending application, specific reference to the earlier filed application must be made in the instant application. This should appear as the first sentence of the specification following the

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title, preferably as a separate paragraph. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

Specification

7. The disclosure is objected to because of the following informalities:

In line 4 of page 3, the term "(alk') is alkylene having 1 to 20 carbon atoms" is not consistent with "(alk) is C₂-C₂₀-alkylene" (page 1, line 26).

In line 2-3 of page 9, it is not clear as what "a suitable salt" refers to.

In line 5 of page 37, should "₃C" be "H₃C"?

Appropriate correction is required.

Claim Objections

8. Claims 4, 7 and 10 are objected to because of the following informalities:

Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In line 4 of Claim 4, the term "(alk') is alkylene having 1 to 20 carbon atoms" is not consistent with "(alk) is C₂-C₂₀-alkylene" (Claim 1, line 9). In the interests

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of compact prosecution, the following Office Action is based on this term being "(alk') is alkylene having 2 to 20 carbon atoms"

In line 3 of Claim 7, Applicants are advised to replace "-methacrylate" with -- polyalkylmethacrylate --.

In line 4 of Claim 7, Applicants are advised to replace "-methacrylate" with -- polyhydroxyalkylmethacrylate --.

In line 29 of Claim 10, Applicants are advised to replace "-NR" with -- -NR- --.

In Claim 10, formulae (9a), (9b), (9c) and (9d), Applicants are advised to replace "H, CH₃" with -- H (or CH₃) --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 7 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In lines 5-9 of Claim 7, it is not clear as to which "and" is associated with the Markush language "selected from the group consisting of". In the interests of compact prosecution, the following Office Action is based on that in line 7, the first and the third "and"'s and in line 8, the "and" are replaced by "or". In other words, the second "and" in line 7 is associated with the Markush language as indirectly indicated in the specification (page 8, lines 24+).

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Regarding Claims 9-11, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In lines 8-9 of Claim 7, it is not clear as what "a suitable salt" refers to.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

14. Claims 1 and 4-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Meijs (US 5,981,615).

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With respect to Claims 1 and 4, Meijs discloses a macromonomer of formula (VI)(col. 6, lines 49-54) that corresponding to Formula (1) with A being Formula (2) wherein $x = 0$, $s_2 = 0$, $p=1$, $q=1$, $t=0$, Q is $\text{CH}_2=\text{C}(\text{CH}_3)\text{C}(\text{O})\text{OC}_2\text{H}_4-$, L_1 is $-\text{NHC}(\text{O})\text{O}-$, L_2 is $-\text{O}(\text{O})\text{C}-\text{NH}-\text{R}-\text{NHC}(\text{O})\text{O}-$ (R is the trimethylhexamethylene component of trimethylhexamethylene diisocyanate), B is $-\text{PEG}-\text{CH}_3$, A is PDMS. The sum of s_1+s_2 is about 19 to 43 because the molecular weight of the PDMS is 800 to 3000 and the formula weight of dimethylsiloxo repeating unit is 74.

With respect to Claims 5-6, Meijs' $-\text{NHC}(\text{O})\text{O}-$ linkage further corresponds to Applicants' formula (4e) and $-\text{O}(\text{O})\text{C}-\text{NH}-\text{R}-\text{NHC}(\text{O})\text{O}-$ linkage further corresponds to Applicants' formula (4a).

With respect to Claim 7, Meijs' $-\text{PEG}-\text{CH}_3$ corresponding to Applicants' polyoxyalkylene.

With respect to Claim 8, Meijs' $\text{CH}_2=\text{C}(\text{CH}_3)\text{C}(\text{O})\text{OC}_2\text{H}_4-$ corresponding to Applicants' formula (7) wherein (Alk) is $-\text{C}_2\text{H}_4-$, X is O, $w = 1$ and R_{11} is $-\text{C}(\text{CH}_3)=\text{CH}_2$.

15. Claims 2-3 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Meijs does not teach or suggest Applicants' amphiphilic blockcopolymer wherein t is not 0 or p and q are independently a number larger than 1 when t is 0.

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Domschke (US 6,043,328) teaches a polymer corresponding to the precursor of Applicants' amphiphilic blockcopolymer (Example A1). However, Domschke does not teach or suggest further reacting the polymer with a surface-modifying hydrophilic segment.

16. The following "X" references cited in the international search report do not teach or suggest a block copolymer having a segment corresponding to Applicants' hydrophilic segment.


Mueller (US, 4837,289) and Mueller (EP 291,452).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (703) 306-5550.

The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson, can be reached on (703) 308-2340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kuo-Liang Peng 

March 7, 2001



Robert Dawson
Supervisory Patent Examiner
Technology Center 1700